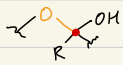
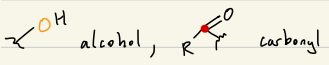
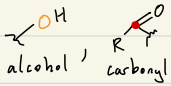
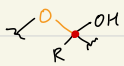
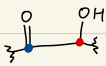
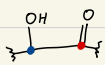
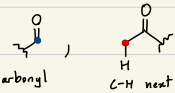
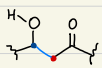
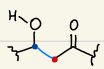
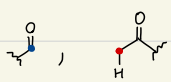
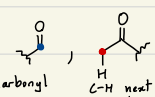
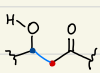
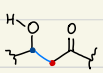
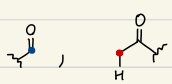
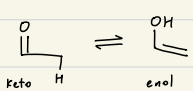
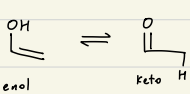
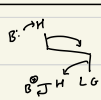
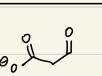
Enzyme Mechanism	NEED:	GET:
Phosphorylation	$-O^{\ominus}$: nuc, Phosphate	phosphorylated product
Dephosphorylation	nuc to attack, C–OP	nuc–C (dephosphorylated substrate), $^{\ominus}$OP (phosphate)
Ring break (break C–O)		 alcohol, carbonyl
Ring form (form C–O)	 alcohol, carbonyl	
Aldose – Ketose	 carbonyl next to alcohol	
Aldol (form C–C)	 carbonyl, C–H next to carbonyl	
Retro-aldol (break C–C)	 alcohol next to C next to carbonyl	
Aldol (form C–C) w imine	 carbonyl, C–H next to carbonyl, amine (eg Lys)	
Retro-aldol (break C–C)	 alcohol next to C next to carbonyl, Ⓟ TPP, amine (eg Lys)	
Keto-enol tautomerization	 keto, enol	 enol, keto
Elcb elimination	 e⊖ nearby for double bond formation (doesn't have to be 1)	
Decarboxylation	 $COO^{\ominus}$ next to C next to $e^{\ominus}$ sink/ⓟ TPP